

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
BUREAU OF AIR

May 2002

Responsiveness Summary
for Questions and Comments on the
Joint Construction and Lifetime Operating Permit Application for
Tonyan Brothers, Inc.

Site Identification No.: 111810AAE
Application No.: 01090052

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DECISION

The Illinois Environmental Protection Agency Bureau of Air processes applications for permits for sources of emissions to the atmosphere. An air permit application must appropriately address compliance with applicable air pollution control laws and regulations before a permit can be issued.

Upon review of comments received during the public comment period and final review of the application, the Illinois Environmental Protection Agency (Illinois EPA) has determined that the application meets the standards for issuance. Accordingly, on May 31, 2002, the Illinois EPA issued a joint construction and lifetime operating permit to Tonyan Bothers to build and operate an aggregate crushing operation at the Linden Lakes Sand and Gravel pit on Illinois Route 173 in Hebron. Copies of the permit may be obtained from the contact at the bottom of this document or at www.epa.gov/region5/air/permits/ilonline.htm (look under All Permit Records, Joint Construction and Operating Permits, New).

CHANGES BETWEEN THE DRAFT AND FINAL PERMITS

The Illinois EPA has revised the permit to make it more stringent. These changes were made to address comments received during the comment period and at the hearing. The permit as issued includes the following significant changes compared to the draft permit.

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| Condition 7.) | The facility shall perform visible emission readings for each of the sand and gravel storage piles every third process or shipping operating day. If the opacity of the visible emissions from any storage pile exceeds 10 percent, the surface of that storage pile shall be sprayed with water promptly, such that visible emissions are reduced below 5 percent, as verified by a subsequent visible emission reading taken the same operating day. |
| Condition 8.) | Fugitive emissions of particulate matter from the paved roads shall not exceed 10 percent opacity. The facility shall power flush with water all paved roadway surfaces on the site at least daily during facility shipping operation, except when the ambient air temperature is less than or expected to be less than 35° F prior to the end of the operating day; or alternatively, the Permittee shall sweep all paved roadway surfaces during shipping operation. Flushing or sweeping shall not be required during or within four hours following precipitation. |
| Condition 9.) | The facility has limited the truck traffic to less than 190 trucks in any 24-hour period. |
| Condition 10.) | The facility shall not simultaneously operate more than three front loaders for handling sand and gravel. |
| Condition 11.) | The facility shall control fugitive emissions of particulate matter from unpaved roadways regularly traveled by trucks, loaders, or mobile equipment |

transporting material in the processing area by use of one or more of the following measures during process operating days:

a.) Application of water at least daily, except when the ambient air temperature is less than or expected to be less than 35° F prior to the end of the operating day, or during or within four hours following precipitation.

b.) Application of calcium chloride, magnesium chloride, or another chemical dust suppressant in accordance with the supplier's guidelines, so as to achieve a minimum control efficiency of 85%.

Condition 17b.) The facility shall maintain records of operating logs for the water spray equipment, including dates, times of usage, and malfunction (time, date, and measures taken to correct).

Condition 17d.) The facility shall maintain records of date and time of day for each cleaning of the paved roadway surfaces.

Condition 17e.) The facility shall maintain records of date and time of water or chemical suppressant application to unpaved areas and the identity and quantity of suppressant used.

Condition 17h.) The facility shall maintain records of opacity reading measurements including date, time, and identity and location of emission source.

BACKGROUND

Tonyan Brothers submitted an application on September 25, 2001 for a joint construction and lifetime operating permit from the Illinois EPA to build an aggregate crushing plant at the Linden Lakes Sand and Gravel pit in Hebron. Although not required for a facility of this size, due to public interest in the facility, the Illinois EPA determined that a public comment period and hearing should be held to allow for public review and comment. Following its preliminary technical review of the Tonyan Brothers, Inc. application, the Bureau of Air prepared a draft permit for public comment.

The public comment period began on January 9, 2002, with the publication of a notice in the Northwest Herald. Notices were also published in the Northwest Herald on January 16 and 23, 2002. Letters announcing the hearing were mailed out to local officials and interested citizens. A public hearing was held on February 25, 2002 at the Alden-Hebron Elementary School to receive oral comments and answer questions regarding the permit application and proposed permit issuance. The comment period remained open until March 27, 2002 to receive written comments.

QUESTIONS AND COMMENTS

Mining

- 1. The company has been mining at the site even though it did not have a permit from the Illinois Environmental Protection Agency (Illinois EPA).**

The activities that have occurred at the site up until now are considered mining and are not regulated by the Illinois EPA. Mining, including the removal of soil, sand, and gravel with front-end loaders, blasting and excavation, is regulated by the Illinois Department of Natural Resources (DNR), Office of Mines and Minerals. DNR permits and inspects mining sites and does annual aerial photographing to document mining activity. If you have questions about mining at Tonyan Brothers you may contact the Office of Mines and Minerals Ottawa Regional Office at 815/433-7050.

The Illinois EPA, Bureau of Air requires a permit for stationary equipment and structures that generate air emissions. A permit allows the Illinois EPA to control emission levels from stationary sources and to dictate how that machinery should be operated and maintained.

The Illinois EPA also enforces fugitive dust emission regulations. Illinois' environmental regulations prohibit fugitive emissions from crossing a company's property line. The Illinois EPA will check for fugitive emission problems during inspections and when responding to citizen complaints.

- 2. Does the company have to get a permit from the Department of Natural Resources, Office of Mines and Minerals?**

The company is listed as a mine operator with the Office of Mines and Minerals. They have to get a permit from the Office of Mines and Minerals if they affect more than 10 acres of land annually or have more than 10 feet of overburden at the site. For more information, please contact the Department of Natural Resources, Office of Mines and Minerals headquarters in Springfield at 217/782-9976 or the Office of Mines and Minerals Ottawa Regional Office at 815/433-7050

- 3. The Illinois EPA application does not contain descriptions of roadways, unpaved roadways, how much material will be stripped, how much vegetation will be stripped, or how much surface area will be exposed over the greater portion of the site.**

As stated above the Illinois EPA does not permit mining or vehicular traffic. The permit issued to the company permits process emissions from the crushing, screening and conveying equipment.

Compliance and Inspection Procedures

4. The Illinois EPA is not currently inspecting the facility to determine if there is a fugitive dust problem.

The Illinois EPA regularly inspects facilities that have a permit. Illinois EPA inspectors also respond to complaints concerning facilities whether they have a permit or not. Tonyan Brothers was inspected three times during 1997 and 1998 and most recently in April 2002 because of complaints received by the Illinois EPA. Until now, because the company wants to begin aggregate crushing and processing, the facility did not have, nor did it need, a permit from the Illinois EPA, Bureau of Air.

5. We cannot rely on the company to regulate itself. How will the Illinois EPA ensure that the company is complying with environmental regulations?

The conditions of the proposed permit contain specific limitations and requirements to assure that this facility will comply with all applicable regulations. The permit sets limitations on the throughput, opacity readings, and moisture content. The permit conditions also establish appropriate compliance procedures, including inspection practices, recordkeeping requirements, and reporting requirements. The Permittee must carry out these procedures on an on-going basis to demonstrate that the facility is operating within the limitations set by the permit and is properly controlling emissions.

If there is an exceedance of the requirements of the permit as determined by the required records, the company shall submit a report to the Illinois EPA Compliance Section. The report should include the emissions released in accordance with the recordkeeping requirements, a copy of relevant records, and a description of the exceedance or violation and efforts to reduce the emissions and future occurrences.

Since it is unfeasible for the Illinois EPA to be at every facility in the state all the time, the recordkeeping and monitoring requirements implemented in the permit serve as a means to ensure the company complies with all applicable regulations on an on-going basis. In addition to the required records, field inspectors conduct routine and unannounced inspections at the sites. The residents in the surrounding area of a facility can often times be highly instrumental in assisting the Illinois EPA in identifying violators.

The Illinois EPA Des Plaines regional office is responsible for inspections at Tonyan Brothers. Field inspectors typically conduct inspections based on an annual work plan. However, if an alleged violation is reported, the inspector will make that facility a priority on his/her inspection schedule. An inspection at a sand and gravel plant often involves reviewing production, maintenance, moisture content, and any other required records, taking visible opacity readings from applicable equipment, making visual observations of areas for visible emissions, and observing how the company maintains their operations. The inspector can only verify the conditions that are observed at the time of the inspection, they cannot verify conditions that occur beforehand or after

the time at which they depart from the site. If you wish to report a complaint related to air pollution, please contact the Des Plaines regional office at 847-294-4000.

6. Section 14 of the permit states that if there is an exceedance of the requirements of this permit, then the company is obligated to do certain things.

When there is an exceedance of the requirements of the permit, a specific procedure is implemented to resolve the compliance issue. The first priority is to return the environmental condition back into compliance with the duly adopted standards. The secondary concern is the consideration of any enforcement actions. If an alleged violation is noted, an IEPA field inspector will conduct an inspection at the facility to confirm the violation and determine its severity. A Violation Notice (VN) or Non-Compliance Advisory (NCA) will be sent to the company citing the apparent violations or exceedances that have occurred. The company must then respond to the VN or NCA with a plan of action to rectify the problem, achieve compliance with the cited violations, and prevent any future occurrences. If the proposed compliance procedure is not satisfactory, then a pre-enforcement conference may be held to allow the company an opportunity to discuss the issues. Depending on the result of the conference, a formal complaint may be filed with Illinois Attorney General Office (AGO). The AGO will file the formal enforcement action with the Illinois Pollution Control Board (IPCB). The IPCB is a judicial body that adopts environmental regulations, hears contested cases, and effectively acts as the environmental court of law. It determines, defines, and implements environmental control standards in accordance with the Illinois Environmental Protection Act (Act), while acting for the state regarding standards submitted in accordance with federal laws covering environmental protection.

The severity of the detriment and urgency of remediation are factored into the priorities given to the enforcement process. Historically, the AGO has been fairly aggressive in pursuing mandated remediation and clean up of public resource areas and areas which have had widespread and common environmental impacts. Individuals seeking retribution for their private property can pursue their own legal recourse.

7. If the Illinois EPA regulates air quality in the State of Illinois, how do you gather information on whether a gravel pit is operating at the proper production levels, other than reports submitted by the company's?

The information submitted to the Illinois EPA and the information required to be maintained by the Tonyan Brothers is sufficient in determining compliance with all the applicable state and federal regulations. All of this information can be verified by the Illinois EPA field staff during inspections.

The standards for the allowable emissions of total particulate matter from process emission units are established in 35 IAC Section 212.321. These standards are based on the amount of raw material or sand and gravel processed on an hourly basis. Tonyan Brothers has proposed plans to significantly reduce their PM emissions. First of all, the company has voluntarily requested to limit their emissions below the rate which is allowed under 35 IAC Section 212.321. The emission limit

of 5.5 tons per year of PM proposed in the permit is based on the actual emissions rather than the allowable limit under state regulations. Furthermore, the company has proposed the following measures to restrain process and fugitive emissions of PM by maintaining a high moisture content of the sand and gravel processed, water spray equipment, opacity readings, and/or dust suppression chemicals. An implementation of these measures is incumbent on the facility along with appropriate monitoring through the moisture content and opacity testing, regular control equipment inspections, and recordkeeping.

Fugitive Emissions Control

8. Who should residents contact if there is a fugitive dust problem?

Air emission complaints should be reported to the Illinois EPA, Des Plaines Office at 847/294-4000. The field office will be looking for specific information about the incident including the time of day, and the wind speed and wind direction.

9. The draft permit as written does not assure continuous compliance with fugitive dust emission regulations. Dust from this facility will have an adverse impact off-site, including a wetland habitat that the Department of Conservation is trying to recreate across Route 173 from the facility. How will the company keep fugitive emissions, such as those from trucks or storage piles, from blowing off-site?

35 Illinois Administrative Code (IAC) 212.301 requires that the facility not cause or allow emissions of fugitive particulate matter from any process, including material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property of the source. Fugitive particulate matter is defined as any particulate matter emitted into the atmosphere other than through a stack. The regulation under Section 212.301 does not apply, however, when the wind speed is greater than 25 mph pursuant to the exemption under 35 IAC 212.314. Determination of wind speed for the purposes of the exemption under 35 IAC 212.314 shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site.

In addition to state regulations, the crushers, screen, and conveyors at Tonyan Brothers are subject to federal regulations under NSPS Subpart A and OOO that requires an opacity limit on the listed equipment. Opacity is by definition a measure of the fraction of light which when transmitted from a source through a smoke obscured paths, is prevented from reaching the observer or instrument receiver. Opacity is in essence an indicator of the amount of particulate matter emitted from a source.

Based on the comments received during the hearing and comment period, the permit has been modified to include additional monitoring, inspection practices, and recordkeeping requirements in order to further control the fugitive emissions. The additional permit conditions are as follows:

- Condition 7.) The facility shall perform visible emission readings for each of the sand and gravel storage piles every third process or shipping operating day. If the opacity of the visible emissions from any storage pile exceeds 10 percent, the surface of that storage pile shall be sprayed with water promptly, such that visible emissions are reduced below 5 percent, as verified by a subsequent visible emission reading taken the same operating day.
- Condition 8.) Fugitive emissions of particulate matter from the paved roads shall not exceed 10 percent opacity. The facility shall power flush with water all paved roadway surfaces on the site at least daily during facility shipping operation, except when the ambient air temperature is less than or expected to be less than 35° F prior to the end of the operating day; or alternatively, the Permittee shall sweep all paved roadway surfaces during shipping operation. Flushing or sweeping shall not be required during or within four hours following precipitation.
- Condition 9.) The facility has limited the truck traffic to less than 190 trucks in any 24-hour period.
- Condition 17b.) The facility shall maintain records of operating logs for the water spray equipment, including dates, times of usage, and malfunction (time, date, and measures taken to correct).
- Condition 17d.) The facility shall maintain records of date and time of day for each cleaning of the paved roadway surfaces.
- Condition 17h.) The facility shall maintain records of opacity reading measurements including date, time, and identity and location of emission source.

10. The company's application does not provide information regarding how the product is to be handled outside of the processing area. By not providing this information the company has eliminated significant on-site activities from Illinois EPA's consideration. Why aren't fugitive emissions such as those from stockpiles, unpaved roadways or excavation sites included in the permitted emissions?

As stated above, the Illinois EPA, Bureau of Air does not permit excavation activities. Nor pursuant to the environmental regulations of the state are fugitive emissions included in permitted emissions for sand and gravel operations. The Illinois EPA does enforce fugitive emission regulations. To that end, the joint construction and lifetime operating permit issued to Tonyan Brothers includes additional monitoring, inspection practices, and recordkeeping requirements in order to further control the fugitive emissions from the unpaved processing areas. This will significantly reduce fugitive dust emissions associated with activity on unpaved surfaces. The additional permit conditions are as follows:

- Condition 10.) The facility shall not simultaneously operate more than three front loaders for handling sand and gravel.
- Condition 11.) The facility shall control fugitive emissions of particulate matter from unpaved roadways regularly traveled by trucks, loaders, or mobile equipment transporting material in the processing area by use of one or more of the following measures during process operating days:
- a.) Application of water at least daily, except when the ambient air temperature is less than or expected to be less than 35° F prior to the end of the operating day, or during or within four hours following precipitation.
 - b.) Application of calcium chloride, magnesium chloride, or another chemical dust suppressant in accordance with the supplier's guidelines, so as to achieve a minimum control efficiency of 85%.
- Condition 17b.) The facility shall maintain records of operating logs for the water spray equipment, including dates, times of usage, and malfunction (time, date, and measures taken to correct).
- Condition 17e.) The facility shall maintain records of date and time of water or chemical suppressant application to unpaved areas and the identity and quantity of suppressant used.

11. There is no moisture content data in the application. Typically, in the saturated zone, moisture content will be greater than 5%. In the unsaturated zone, typically you will find moisture contents of perhaps 3% to 5%. How will Tonyan Brothers know how to control moisture content if they don't know the moisture content of the material?

The information used in determining the emissions from the Tonyan Brothers processing plant are based on emission factors from the Aerometric Information Retrieval System (AIRS) and USEPA Compilation of Air Pollutant Emission Factors (AP-42). These systems serve as repositories of information on airborne pollution in the United States and various World Health Organization member countries. They are administered by the U.S. Environmental Protection Agency (USEPA), Office of Air Quality Planning and Standards, Office of Air and Radiation, and the Information Transfer and Program Integration Division. The emission factors resulted from extensive research and analysis of air borne pollutants from the sand and gravel industry.

According to the AP-42 Section 11.19.1 for Sand and Gravel Processing, deposits of sand and gravel are found in subterranean and subaqueous beds. The products are mined in moist or wet conditions. The emissions of particulate matter from the process operations at a sand and gravel plant such as conveying, screening, crushing, and storing are often negligible since the materials are wet or moist when handled. Although the AP-42 Section 11.19.1 for Sand and Gravel Processing does not provide emission factors for construction sand and gravel, it refers to the use of

AP-42 Section 11.19.2 for “Crushed Stone Processing” for estimating emissions from sand and gravel processing sources.

Based on AP-42 Section 11.19.2, operations that process materials with a moisture content ranging from 0.55 to 2.88 percent is considered a controlled or wet suppression system. Uncontrolled operations have moisture contents ranging from 0.21 to 1.3 percent. The controlled systems are estimated at an efficiency of approximately 95%. The moisture content of the sand and gravel processed at Tonyan Brothers, as verified by the required tests, will be maintained at a moisture content of at least 5% and hence has been given the control efficiency of 95% for the wet screen and cone screen and 90% for the junior screen, harper screen, and conveyors. In order to ensure that the moisture content of a representative sample of the sand and gravel continual complies with the 5% requirement, the permit has been revised to require that the moisture content be measured at the jaw crusher every third process operating day.

- 12. The testing procedures leaves it to the operator's discretion as to what day of the week, what hour to test, what load to test, and what particular part of the load to test. It is not sufficient to ensure continuous compliance on the rest of the site.**

The Illinois EPA believes that there are sufficient restrictions in this permit to show compliance with the regulations on a continuous basis. None of the permits issued by the Illinois EPA specify the day or the time of testing.

- 13. There is no discussion in the draft permit of how this high moisture content (5%) will be maintained. Will the company have a spray system throughout the facility to wet down roads, piles and equipment?**

The company is required to do periodic moisture testing and opacity reading and use water spray equipment to control fugitive emissions.

- 14. The Illinois EPA should regulate where the spray systems are used within the facility.**

Illinois EPA inspection personnel cannot be at the facility full time. As such it would be difficult for the Illinois EPA to determine on a day-to-day, much less hour-to-hour, basis where spray equipment may be most needed due to changing weather, operation, or other conditions at the facility. The facility's staff are the appropriate party to determine where and when spray systems need to be used. If dust is seen leaving the facility's property line then a complaint should be made to the Illinois EPA's Des Plaines Regional Office so that an inspector can go to the facility to determine whether the spray systems are being used in an effective manner.

- 15. In condition No. 6, it states, "...the moisture content of the sand and gravel as processed shall be 5 percent by weight so as to reduce emissions of particulate matter." Does "...as processed..." include as excavated, as transported from the excavation to stockpiles? Does it include stockpiled material?**

Moisture content will be measured at the jaw crusher. Emissions limits in the permit are based on process emission sources. The moisture content is measured at the jaw crusher because it is a representative sample of the material processed.

- 16. The stockpiles will be a large source of fugitive emissions. There are no fugitive particulate matter emission control procedures given for these areas other than "best management practices."**

Permit Condition 7 requires Tonyan Brothers to take opacity readings of the storage piles. If the opacity exceeds 10%, the company is required to use water spray until the opacity is reduced to 5%.

- 17. Is the opacity test a one-time test?**

Tonyan Brothers must take opacity readings as required by the conditions in the permit and they must comply with the opacity limitations on a continuous basis.

- 18. The Illinois EPA's June 1, 2001 letter to Tonyan Brothers states that, "...trucking out of material onto the public highway needs to be addressed. In quarrying operations we have found that if one area is wet while others are dry, material will be picked up on truck tires and transported onto public roads where it dries and can create a nuisance. This situation would also apply to sand and gravel operations. Please provide information on how the fugitive particulate emissions will be controlled." How is this problem going to be addressed?**

The Illinois EPA does not have the authority to regulate public traffic areas. However, Tonyan Brothers has indicated that they plan on using a water spray/sweeper truck on parking areas and facility access roads and a concrete sump grate for trucks leaving the site to control fugitive emissions from areas outside of the central processing district. Tonyan Brothers also indicated in a letter to the Illinois Department of Transportation dated April 17, 2002 that they will sweep the Route 173 as needed to keep it clear of debris. Your local authorities will also be able to assist you with concerns involving truck traffic and road safety.

General Questions

- 19. In your letter to the company dated June 1, 2001, Item 2, you specifically asked for a map that shows the distance of the facility to the nearest residences, schools, and manufacturing establishments. This school was not included and two manufacturing facilities that are so close to this facility were not included. The map didn't show any of the residences on the north, east or west sides of 173 or residences on Kemman Road immediately west of the proposed site.**

The site map showing the distance to the nearest school, residences, and manufacturing establishments that was submitted to the Illinois EPA is sufficient in determining the compliance of the facility to all the applicable rules and regulations.

- 20. The flow diagram submitted with the application fails to indicate the method of extraction or the equipment that will be used for extraction; it fails to indicate the method to transport aggregate from the excavation site to the central processing district; it fails to list equipment to be used outside of the central processing district.**

The Illinois EPA Bureau of Air only permits emissions from the processing equipment, e.g. the crusher, screens, conveyors. Information on activities aside of the processing of the aggregate is not used in making a determination of whether a permit can be issued to Tonyan Brothers.

- 21. This is not an appropriate location for a gravel pit. There is a school within half a mile from the facility.**

The Illinois EPA does not regulate the location of facilities. Local bodies of government regulate the appropriateness of the use of a parcel of property through zoning regulations.

- 22. There is substantially different data submitted with this application that was not available to McHenry County when they made their original ruling on the site and this information changes things tremendously. The production rate has gone up significantly. The truck traffic has gone up significantly.**

The Illinois EPA and the McHenry County authorities are separate and independent regulatory entities. Any information submitted to McHenry County is irrelevant in the review of the permit application in determining whether the facility is in compliance with all the applicable state and federal air pollution control requirements.

McHenry County is responsible for enforcing its own regulations and compliance with State of Illinois regulations does not guarantee compliance with local regulations. However, variation from the information submitted to the county does not necessarily indicate that the county's zoning or other regulations were violated. An example, although the company originally provided information to the county that they were going to process less material then they are currently

planning that does not mean that the county regulates the amount of material processed at the site. Likewise, although the Illinois EPA requested a map of neighboring facilities that does not mean that the Illinois EPA regulates zoning or any type of set back that may be required under local zoning. If the county feels it needs to request further information from the company or that the company is not in compliance with local regulations, it is responsible for taking the appropriate action.

23. We were originally told that this was only going to be a 15-year pit. The company has requested a lifetime permit.

The Illinois EPA does not issue permits based on the life expectancy of a facility. Permits are instead based on the potential emissions from a facility. Based on the operations and the amount of emissions generated at the facility, they are eligible for a Lifetime State Operating Permit. The Illinois EPA issues three types of operating permits:

1. Clean Air Act Permit Program (CAAPP) permits are issued to major emitters, generally those that emit over 100 tons per year (tpy) of any one criteria pollutant (nitrogen oxides, carbon monoxide, particulate matter, sulfur dioxide, and volatile organic material). There are approximately 750 CAAPP sources in the state. These permits must be renewed every five years.
2. Federally Enforceable State Operating Permits (FESOPs) are issued to sources that have taken restrictions to be below the major level. There are approximately 650 FESOP sources in the state. These permits must be renewed every five years.
3. Lifetime Operating Permits are issued to facilities whose emissions based on continuous operation (24 hours a day, 365 days a year) will not exceed the major source limit. There are approximately 6600 Lifetime Operating Permit sources in the state. These permits do not expire.

The largest 250 sources in the state, all of which are CAAPP sources, make up approximately 95% of the air pollution in the state. Based on this information, the Illinois EPA Bureau of Air Permit Section has decided to focus its resources on the largest sources (CAAPP and FESOP sources) and issue Lifetime Operating permits to the smallest sources in the state. Lifetime Operating Permits can be reopened if the Illinois EPA determines that there is cause to review the permit. The Lifetime Operating Permit sources are inspected by the Illinois EPA Bureau of Air field staff and field inspectors will also inspect a facility based on resident complaints. With 6600 Lifetime Operating Permit sources in the state, the Illinois EPA does not have the resources to renew permits for Lifetime Operating Permit sources every five years nor would it be environmentally responsible to focus large amounts of resources on these sources which make up such a small percentage of the air emission loading in the state. All permitted sources must report their actual emissions annually to the Illinois EPA.

- 24. If production is up fourfold will the facility close in less than four years since it was originally proposed as a 15-year operation?**

As explained above, the Illinois EPA does not regulate how long a facility stays in business. This is a question more appropriately addressed to the company.

- 25. Since the hearing the Illinois EPA has received additional material from and held meetings with Tonyan Brothers. Residents have not been given an opportunity to comment on new changes to the permit. The Illinois EPA should hold another hearing.**

The Illinois EPA has revised the permit to make it more stringent. These changes were made to address comments received during the comment period and at the hearing. Another hearing will not be held on this permit. The meetings with Illinois EPA and Tonyan Brothers involved discussions about conditions to be added to the permit to make it more restrictive and to inform the company that further measures need to be taken to control fugitive dust.

- 26. Based on the comments received at the hearing and in writing the Illinois EPA should deny the permit.**

The Tonyan Brothers application met the standards established in the Illinois Environmental Protection Act and state and federal air pollution regulations, as such the Illinois EPA does not have the authority to deny the permit.

Water Permits and Water Usage

- 27. Does the company have a permit from the Illinois EPA Bureau of Water?**

The Illinois EPA does not regulate taking water from aquifers. The Illinois EPA's Bureau of Water does issue permits for construction activities and water discharges. Tonyan Brothers is required to have a permit from the Illinois EPA Bureau of Water. This permit was issued in June 1997. Any questions or concerns on water related issues should be directed to the Illinois EPA, Bureau of Water Permit Section at (217)782-0610.

- 28. The company, I think illegally, has put a 14-inch water drainage pipe through a berm on the property which drains into a wetland on a neighboring property which ends up going into drainage tile and then into the Nippersink Creek.**

This has been referred to the Illinois EPA, Bureau of Water Field staff that inspects facilities in McHenry County. If a violation is found the Illinois EPA, Bureau of Water will pursue its regular violation process.

29. **Before issuing a permit the Illinois EPA should require three things of the company.**
- 1.) **A groundwater flow model: Preparation of such a model would provide a more exact analysis of the flow regime between the Streets Lake and gravel pit. The approximate amount of decrease in water supply, the exact change in groundwater flow and the amount of water level fluctuations in the marsh would thus be quantified.**
 - 2.) **A water balance for the marsh: A water balance would be included in preparation of the groundwater flow model, but on its own would provide another form of quantifying impacts from the gravel pit.**
 - 3.) **A containment transport model: This model will evaluate the potential of the gravel pit to contaminate groundwater and would assess if contamination could reach the marsh.**

The issued permit is for air emissions from the facility. The Illinois EPA Bureau of Air does not have the authority under the State of Illinois laws to require the company to perform such models.

30. **The applicant said that there would be no impact, however their maximum pumping rate is going to be 300 tons of water per hour which comes out to about 60,000 gallons per hour which is a very substantial pumping rate. Pumping a thousand gallons per minute could impact Streets Lakes Marsh and residential wells.**

The State of Illinois (and the Illinois EPA being a state agency) does not regulate the taking of water from aquifers in the state.

Permit Conditions

31. **Tonyan Brothers is not required to submit to the Illinois EPA all of the records that it is required to maintain. Therefore, there is no means for local governmental authorities or citizens to obtain these documents. How is the public able to monitor production if records are not available through your agency or some other local agency?**

The conditions of the permit require the facility to maintain monthly records and logs at the source for a period of three years. On routine inspections by the Illinois EPA field staff, these records will be checked to determine compliance with the permit conditions. If any violations are found they will be listed in the inspection reports. Inspection reports are publicly available documents. Also documents related to enforcement actions brought by the Illinois EPA are available to the public. To obtain publicly available documents pursuant to the Freedom of Information Act, a written request must be submitted to the Illinois EPA.

32. The proposed operating permit fails to provide any of the local authorities with the ability to monitor what is taking place on this particular facility

The Illinois EPA does not have the authority to allow the local authority to monitor the activity of Tonyan Brothers. If the local government such as the City of Hebron or McHenry County has such regulations then it is their responsibility to enforce their regulations.

33. It is a forgone conclusion that the Illinois EPA is going to give the company a permit.

The General Assembly passes the laws in the State of Illinois and the Illinois Pollution Control Board writes the environmental regulations based on those laws. Illinois EPA enforces the environmental laws and regulations. If the company meets the environmental regulations of the state then the Illinois EPA is required to issue a permit to the company.

34. I think the reason that the Illinois EPA haven't received more complaints about the facility is that the company has built berms so that neighbors cannot see the mining operation.

The Illinois EPA does not regulate visual nuisance. Berms are generally put in place so that a facility will not be a visual nuisance. The Illinois EPA, Bureau of Air does regulate fugitive dust. If you see dust blowing off site you should report it to the Illinois EPA's Des Plaines Office.

35. By letter dated June 1, 2000 to Tonyan Brothers, the Illinois EPA requested additional information in regard to the earlier application which was filed by Tonyan Brothers. The letter contained 10 points of deficiency. Items 4 through 10 have not been addressed by the company.

The company responded to that letter in September 2001 and simultaneously withdrew their application. Tonyan Brothers submitted a new application on September 25, 2001. The hearing that the Illinois EPA held was to address that current application of September 25, 2001, not deficiencies in an application that had already been withdrawn. The application under review has met the standards for issuance and the Illinois EPA has issued a permit to the company to construct and operate an aggregate crushing plant.

36. **The application that has been submitted to the Illinois EPA says that this facility is going to operate five days a week, eight hours a day, 40 hours a week. The permit that the company received from McHenry County states that the facility can operate 12 hours a day from 6:00 to 6:00, Monday through Friday and from 8:00 to 4:00 on Saturday. That makes a total of 70 hours. Tonyan Brothers is giving the Illinois EPA incorrect production figures.**

The Illinois EPA does not possess the statutory authority to mandate the hours of operations of a facility as long as the facility demonstrates compliance with all the applicable state and federal air pollution control requirements. The conditions in the permit limit the hourly and annual throughput of the process equipment. The facility must comply with both local and state requirements.

Modeling

37. **That modeling analysis that Tonyan Brothers preformed in November of 2000 indicated that the facility would not violate ambient air quality standards for particulate. However that modeling was based on operating and emissions data submitted in the January 2001 application. Since the company did not submit modeling data with its current application, using the data in the current application we performed a proportional analysis. If you assume that the emission sources have some similarities and they are located within a reasonable proximity to the original modeling, you can do a proportional analysis and the proportional analysis will give you some indication of what those impacts may be. We have conducted that proportional analysis and determined that the facility's impact will go from approximately 148 micrograms per cubic meter to an impact of almost 560 micrograms per cubic meter on a 24-hour average to compared to the National Ambient Air Quality Standard of 150 micrograms per cubic meter. In addition, the annual air quality impact would go up to as much as 101 micrograms per cubic meter which is well over the annual National Ambient Air Quality Standard. These impacts do not even include all the fugitive emission sources at the facility such as excavating, truck loadout, vehicle activity on unpaved roads and storage piles.**

There is no regulatory requirement for a project of this size to perform ambient air quality modeling. This is a requirement of much larger sources that require Prevention of Significant Deterioration permits. However, to address the concern raised in this question, conditions have been added to the issued permit requiring Tonyan Brothers to more stringently control particulate matter emissions than was proposed in either the January 2001 application or the draft permit that the Illinois EPA has accepted comments on. The required control practices are comparable to the control practices required on facilities that operate in particulate matter non-attainment areas. A non-attainment area is an area of the state that does not meet the National Ambient Air Quality Standard.

The Pollution Control Board and Illinois courts have recognized that the Illinois EPA's permitting authority is not absolute. Permitting and enforcement responsibilities vested in the Illinois EPA

under the Illinois Environmental Protection Act have been deemed separate and distinct functions. For this reason, the Pollution Control Board and Illinois courts have held that the Illinois EPA cannot lawfully deny a permit as a substitute for enforcement. See, Environmental Protection Agency v. Pollution Control Board, 252 Ill.App.3d 828, 624 N.E.2d 402 (3rd Dist. 1993); ESG Watts, Inc., v. Pollution Control Board, 286 Ill.App.3d 325, 676 N.E.2d 299 (3rd Dist. 1997); Waste Management v. Illinois Environmental Protection Agency, PCB Nos. 84-45, 84-61 and 84-68 (October 1, 1984); Centralia Environmental Services, Inc., v. Illinois Environmental Protection Agency, PCB No. 89-170 (October 25, 1990).

In those situations where a permit denial would rest upon alleged or un-adjudicated violations, the Pollution Control Board and courts have instructed the Illinois EPA to pursue enforcement instead of denying the permit. The Illinois EPA must confine its permitting determinations to the issue of whether the permit applicant has demonstrated that its equipment or facility will comply prospectively. While this rationale may be perceived as overly legalistic, the Illinois EPA is obligated to take such legal considerations into account, especially where the permitting decision is controversial and could involve separate or related litigation.

38. Tonyan Brothers should submit modeling to show compliance with the National Ambient Air Quality Standards.

The Illinois EPA does not have the authority to request such modeling be done. Facilities of this size are not required by the state and federal regulations that apply to perform air modeling to obtain a permit. Although Tonyan Brothers submitted modeling with its application of January 2001, this was not required and Tonyan Brothers has subsequently withdrawn the January 2001 application and submitted a new application in September 2001 that did not include modeling. Ambient air quality modeling is only required for much larger sources of air pollution that are subject to the requirements of the federal Prevention of Significant Deterioration rules 40 CFR 52.21.

Health Impacts

39. There are schools and residences very close to this facility. There is also an increase in lung disease including asthma in the area. What affect will this facility have on the health of residents?

Based on the 2000 Illinois Annual Air Quality Index Report, the air quality at the most representative PM-10 monitoring station showed no exceedance of either the National Ambient Air Quality Standards (NAAQS) primary annual standard of 50 ug/m³ or the primary 24 hour standard of 150 ug/m³. The Illinois EPA has reviewed the application for this project and it should not cause a violation of the NAAQS.

The Clean Air Act requires the USEPA to set **National Ambient Air Quality Standards (NAAQS)** for pollutants considered harmful to public health and the environment. The Clean Air Act established two types of national air quality standards. **Primary standards** set limits to protect

public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly. **Secondary standards** set limits to protect public welfare, including protection against decreased visibility, damage to animals, crops, vegetation, and buildings. NAAQS are based on worldwide research on health effects or secondary environmental effects. In case of air pollution, that is primarily human health.

The USEPA Office of Air Quality Planning and Standards (OAQPS) has set National Ambient Air Quality Standards for six principal pollutants, which are called "criteria" pollutants. Virtually every state in the United States takes a lead in developing national and air quality standards criteria. PM-10 and PM-2.5 are classified as criteria pollutants. The standards are more than goals. They are legally enforceable limitations, and any person causing a violation of the standards is subject to enforcement proceedings under the Clean Air Act. The standards have also been designed for use as a basis for the development of implementation plans by State and local agencies for the abatement and control of pollutant emissions from existing sources, and for the determination of air contaminant emission limitations to insure that population and economic growth trends do not add to the region's air pollution problems.

The NAAQS serves as a legal benchmark against which activities are regulated and permitted within Illinois. The particulate matter standards established in the state and federal regulations are based upon the NAAQS. These standards become our goal and the target that we have to regulate activities to ensure that the environment does not exceed those conditions. The NAAQS is how the state and federal agencies decide what is an acceptable, from a public health perspective, level of activity that will need to be accommodated in order for industry and society to function.

FOR ADDITIONAL INFORMATION

Questions about the public hearing and permit decision should be directed as follows:

Public Hearing Procedures and Exhibits

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Responsiveness Summary (question on or extra copies)

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